Abstract of the Disclosure

Luminous fluxes from a xenon tube are introduced from one end of an optical fiber to an other end thereof and emerge therefrom. These luminous fluxes are incident of a skin of a person to be measured, and those diffused in the skin are incident on one end of an optical fiber through a first incident port and on one end of an optical fiber through a second incident port. The luminous fluxes from the one end are split by a dichroic mirror. The luminous fluxes reflected by the dichroic mirror are received by a photoelectric conversion element via a blue filter, and those having transmitted through the dichroic mirror are received by a photoelectric conversion element via a green filter. A concentration of bilirubin pigmented in fat of subcutaneous tissues can be accurately measured without being influenced by a difference in the thicknesses of epidermis and derma.